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(12) **United States Patent**
Clark

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(54) **METHOD OF MANUFACTURING BULKED CONTINUOUS FILAMENT**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 156 days.

This patent is subject to a terminal disclaimer.

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(57) **ABSTRACT**

A method of manufacturing bulked continuous carpet filament which, in various embodiments, comprises: (A) grinding recycled PET bottles into a group of flakes; (B) washing the flakes; (C) identifying and removing impurities, including impure flakes, from the group of flakes; (D) passing the flakes through a PET crystallizer; (E) passing the group of flakes through an MRS extruder while maintaining the pressure within the MRS portion of the MRS extruder below about 18 millibars; (F) passing the resulting polymer melt through at least one filter having a micron rating of less than about 50 microns; and (G) forming the recycled polymer into bulked continuous carpet filament that consists essentially of recycled PET.

20 Claims, 5 Drawing Sheets

